

Rodney C. Ewing University of Michigan

Rodney C. Ewing is the Edward H. Kraus Distinguished University Professor in the Department of Geological Sciences at the University of Michigan, where he has faculty appointments in the Departments of Nuclear Engineering & Radiological Sciences and Materials Science & Engineering. He is also an Emeritus Regents' Professor at the University of New Mexico, where he was a

member of the faculty from 1974 to 1997.

Dr. Ewing received a B.S. degree in Geology from Texas Christian University and M.S. and Ph.D. degrees in Mineralogy from Stanford University where he also held an NSF Fellowship. His current research interests include radiation effects caused by heavy-particle interactions with crystalline materials; properties and long-term behavior of spent nuclear fuel; crystal chemistry of actinide and fission product elements; application of "natural analogues" to the evaluation of the long-term durability of radioactive waste forms; the low-temperature corrosion of silicate glasses; and mineralogy and neutronics of the natural nuclear reactors in Gabon, Africa. Dr. Ewing is the founding editor of *Elements* magazine, author or co-author of more than 600 research publications – including *Radioactive Waste Forms for the Future* (North-Holland Physics, Amsterdam, 1988) and *Uncertainty Underground – Yucca Mountain and the Nation's High-Level Nuclear Waste* (MIT Press, 2006) – and the editor or co-editor of 14 monographs, proceedings volumes or special issues of journals. He has been granted a patent for the development of a highly durable material for the immobilization of excess weapons plutonium.

Dr. Ewing is a fellow of the Geological Society of America, Mineralogical Society of America, American Geophysical Union, Geochemical Society, American Ceramic Society, American Association for the Advancement of Science, and the Materials Research Society. Previously, he served as Councilor and Secretary for the Materials Research Society, and President of the Mineralogical Society of America, International Union of Materials Research Societies, and the New Mexico Geological Society. He was also a member of the Board of Directors of the Caswell Silver Foundation and Energy, Exploration, Education, Inc. Dr. Ewing has been a guest scientist at Battelle Pacific Northwest Laboratories, Oak Ridge National Laboratory, the Hahn-Meitner-Institut, the Technion University at Haifa, the Centre D'Etudes Nucléaires de Fontenay-Aux-Roses of the Commissariat A L'Énergie Atomique, Charles University, the Japan Atomic Energy Research Institute, the Institut für Nukleare Entsorgungstechnik of the Kernforschungszentrum Karlsruhe, Aarhus University, the Tokyo University Mineralogical Institute, and the Khlopin Radium Institute.

Dr. Ewing has served on National Research Council committees that have reviewed waste disposition and remediation issues at a number of DOE sites. Dr. Ewing has also served as an invited expert for the Nuclear Regulatory Commission's Advisory Committee on Nuclear Waste, a consultant to the Nuclear Waste Technology Review Board, and a member of the National Research Council's Nuclear and Radiation Studies Board.

Dr. Ewing has been nominated to serve on EMAB as a special Government employee in order to provide expert advice on large project planning, science, and technology.